INTERCOMPANY SERVICES COORDINATION PLAN

SERVICE ANALYSIS REPORTS

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1. GENERAL

1.01 Service Analysis Requests (SAR-1) and Service Analysis Reports (SAR-2 for Special Exchange Services or SAR-3 for Private Line Services) are designed to obtain information on the quality of service being furnished to a customer.

1.02 The flow of Service Analysis Requests and Reports is covered in detail in Sections 010-520-101 and 010-520-102. Therefore, this section will cover only the format to be used and the information to be supplied as required by the Intercompany Services Coordination (ISC) Plan.

2. SERVICE ANALYSIS REQUEST (SAR-1)

2.01 The SAR-1 format (see Fig. 1 and 2) is designed to be used for teletypewriter transmission. In message preparation and transmittal, each item will be identified with its mnemonic codes followed by the appropriate information.

2.02 The following should be used as a guide for the preparation of the SAR-1:

TO — Enter TWX number or Official Message Network Code, name of addressee, and office name or city.

ORG — (Originator): Enter TWX number or Official Message Network Code, name of ISC Plant Control Team member (originator), office name or city, and date of issue.

SAR-1 — (Service Analysis Request): Enter 4-digit code identifying originating ISC Team, followed by serial number assigned by the originator to this request.

CCN — (Customer Contracting Name): Enter name and address of the contracting customer.

CS — (Type of Service): Enter type or class of service.

LOC — (Locations to Report): For Special Exchange Services, enter the customer name, address, and telephone number of each served point for which reporting will be required. For Private Line Services, enter contracting customer name, network, circuit(s), served points, etc., as appropriate, for which reporting will be required.

SAR-2 — (Special Exchange Services) or SAR-3 (Private Line Services) — (Service Analysis Report required): Enter duration, dates, or frequency (daily, weekly, etc.).

PCO — (Plant Control Office): Enter name and TWX number or Official Message Network Code of person to whom SAR-2 or SAR-3 should be sent.

RMK — (Remarks): Enter explanation of necessity for study and any additional requirements for information not provided for elsewhere on this format.

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3. SERVICE ANALYSIS REPORT (SAR-2) — SPECIAL EXCHANGE SERVICES

3.01 Service Analysis Report SAR-2 provides a format for sending trouble report data by 4-row TWX to the originator of a Service Analysis Request (SAR-1). To ensure uniformity, Form E-5068A, "Service Analysis Report SAR-2" (see Fig. 3) should be used as a guide in assembling trouble report data in the proper format preparatory to transmittal. Since the format is designed to permit either manual or machine summarization, it is essential that it be followed exactly.

3.02 The SAR-2 format is designed to fit an 80-column punched card (see Fig. 4). Certain control codes are used to permit simultaneous reception of teletypewriter hard copy with the punched card. These control codes are:

> (shift key period) punch start.

< (shift key comma) punch stop.

= (shift key dash) end numeric.

These codes must ***not*** be used anywhere else in the message.

3.03 Fourteen trouble reports, two lines each, can be entered on each Form E-5068A. Numeric information for each report should be posted to the 42 blocks in the first line, as described in 3.04. To produce a valid card, ***exactly*** 42 numeric characters must be transmitted. Thirty-seven blocks are available on the second line for text describing nature of trouble, disposition, or other pertinent information. All or any part of the 37 blocks may be used.

3.04 Preparation of Form E-5068A is as follows:

(a) ***Heading:***

TO — Enter 4-row TWX number or Official Message Network Code, name of addressee, and city or office name.

ORG — Enter 4-row TWX number or Official Message Network Code, name of originator, and city or office name.

REPORT PERIOD — Enter report period covered by the report.

(b) ***Columnar Data for Each Trouble Report:***

CONTROL SAR CODE — Enter originating ISC Team 4-digit identification code and 3-digit serial number.

DATE — Enter month and date expressed in four digits. The first two digits show the month, 01 to 12; the last two digits show the date, 01 to 31.

TIME — Enter time received expressed in four digits. The first two digits show the hours of the day on a 24-hour basis, 00 to 24; the last two digits, the minutes 00 to 59.

CALLING NUMBER — Enter calling customer's 10-digit number (NPA or SAC* code, prefix, and number).

CALLED NUMBER — Enter called customer's 10-digit number (NPA or SAC* code, prefix, and number).

TYPE REPT — Enter type of report. Use code number shown on Form E-4736 (see Fig. 5).

TBL DISP — Enter trouble disposition code. Use code number shown on Form E-4736.

OUTAGE TIME — Enter outage time expressed in three digits. The first two digits express the hours 00 to 99; the last digit, tenths of an hour 1 to 9.

*Special Area Code

Text describing nature of trouble, disposition, or other pertinent information should be entered on the line following numeric data for each trouble report. All or any part of the available 37 blocks may be used.

3.05 The following notes apply to the preparation of punched tape for the transmittal of data entered on Form E-5068A. A hard-copy sample, marked to show teletypewriter functions required for on-line card punching, is shown in Fig. 6. This format is to be followed on all SAR-2 reports.

Note 1: The three control codes (>punch start, <punch stop, and = end numeric) control the business machine (card punch). Each individual trouble report transmission must include these three control codes.

Note 2: A double space is required between each of the eight columns of data "control SAR code" through "outage time," to improve hard-copy readability. Double spaces will appear on the teletypewriter hard copy but not on the punched card.

Note 3: At least ten teletypewriter function operations must occur between trouble reports to give the card punch sufficient time to set up for the next card. Therefore, eight "erase" functions must be transmitted following the "carriage return" and "line feed" at the end of each trouble report.

4. SERVICE ANALYSIS REPORT (SAR-3) — PRIVATE LINE SERVICES

4.01 The forwarding of trouble data on Switched Services Networks is covered in detail in the 310-200-000 series of Bell System Practices. Requests for analysis data on Switched Services Network should be made to the Network Control Office or the Plant Network Manager.

4.02 In many cases, part or all of the data required for Private Line Service analysis will be available on computer printouts such as Long Lines Form P-2071, "Customer Detailed Trouble Data" (see Fig. 7). The format of the SAR-3 is designed to facilitate direct transcription to, or comparison with, data on Form P-2071. It may also be used for manual analysis or for mechanized analysis using a punched card.

4.03 To ensure uniformity, Form E-5068B, "Service Analysis Report SAR-3" (see Fig. 8) should be used as a guide in assembling trouble report data in the proper format preparatory to transmittal.

4.04 Preparation of Form E-5068B is as follows:

(a) Heading — Same as for SAR-2 except the Control SAR Code is included in the heading rather than in the body of the message.

CIRCUIT — Enter the prefix number(s), prefix letters, basic serial numbers, and suffix or subnumbers of the circuit. Spaces not applicable must be filled in with a dash (–).

DATE — Enter month and date expressed in four digits. The first two digits show the month, 01 to 12; the last two digits show the date, 01 to 31.

TROUBLE CODE — Enter the alphanumeric trouble classification code from Form E-4642 (Telephone) or Form E-4644 (Telegraph) as shown in Fig. 9.

DURATION TIME — Enter outage time in hours and minutes.

LOC PLANT CLEARING TIME — Enter clearing time in hours and minutes.

(b) Text — Enter nature, disposition, and ***location*** of trouble and any other pertinent information on the line following numeric data for each report. All or any part of the available 29 blocks may be used.

4.05 The following notes apply to the preparation of punched tape for the transmittal of data entered on Form E-5068B. A hard-copy sample, marked to show teletypewriter functions for on-line card punching, is shown in Fig. 10. This format is to be followed on all SAR-3 reports.

Note 1: The three control codes (>punch start, <punch stop, and = end numeric) control the business machine (card punch). Each individual trouble report transmission must include these three control codes. These codes must ***not*** be used anywhere else in the message.

Note 2: A double space is required between each of the five columns of "Circuit" through "Local Plant Clearing Time" to improve hard-copy readability. Double spaces will appear on the teletypewriter hard copy, but not on a punched card.

Note 3: At least ten teletypewriter function operations must occur between trouble reports to give the card punch sufficient time to set up for the next card. Therefore, eight "erase" functions must be transmitted following the "carriage return" and "line feed" at the end of each trouble report.

Note 4: Do ***not*** use a "line feed" function following the "Local Plant Clearing Time." For comparison with, or transcription to, Form P-2071 or a similar printout, SAR-3 is designed so that all information regarding each trouble report is contained on a single line of teletypewriter hard copy.

SERVICE ANALYSIS REQUEST (SAR-1)

TO	(TWX Number)	(Name)	(City or Office)	
ORG	(TWX Number)	(Name)	(City or Office)	(Date)
SAR-1	(ISC Team Code and Serial Number)			
CCN	(Name and Address of Contracting Customer)			
CS	(Type or Class of Service)			
LOC	(Customer Locations to be Included in Report)			
SAR-2 (SAR-3)	(Reports Required — Dates)			
PCO	(Name and TWX Number to Whom Reports Should be Sent)			
RMK	(Necessity and Additional Information)			

Fig. 1 — Format to be Used in Transmitting Service Analysis Request SAR-1

TO	510-222-9121	H I JAY	HOMETOWN, ILL	
TO	510-285-4815	J KELM	BIG CITY, IOWA	
ORG	710-571-0370	A B SEE	ANYWHERE, NY	9-5-65
SAR-1	0230001			
CCN	NATIONAL DATA CORPORATION			
CS	DATASPEED			
LOC	LIVESTOCK NATIONAL BANK, 210 NORTH SW, BIG CITY, IOWA 515-482-0440 HOME BANK, 1145 HENRY ST, ANYWHERE, NY TEL 212-643-9700 FARMERS TRUST CO, 1901 K ST, HOMETOWN, ILL TEL 312-222-9160			
SAR-2	REPORTS REQUIRED WEEKS ENDING SEPT 14, 21, 28 AND OCT 5, 1965 ONLY			
PCO	A B SEE ANYWHERE, NY TWX 710-571-0370 (TEL 212-394-4930)			
RMK	FORMAL COMPLAINT OF EXCESSIVE ERRORS AND OUTAGE TIME, CONFIRM ALL OUTAGE TIMES WITH CUSTOMER			
END				

Fig. 2 — Sample of Service Analysis Request SAR-1

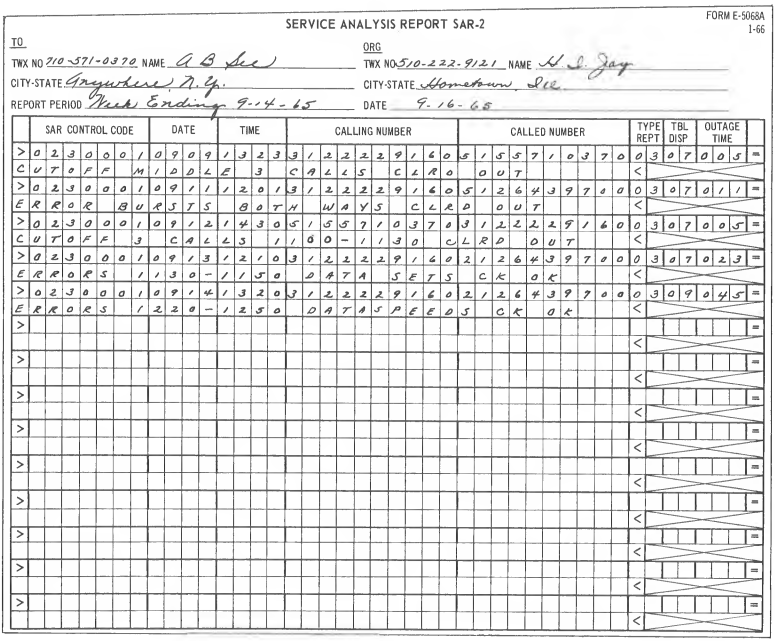
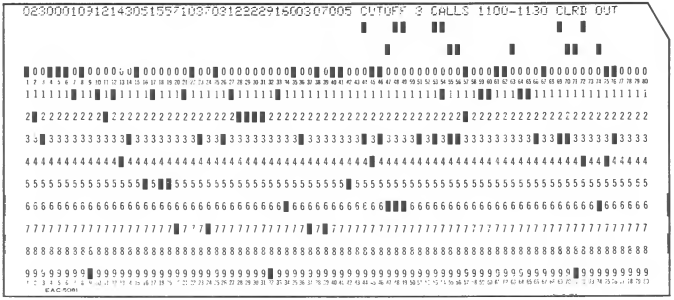


Fig. 3 — Sample of Service Analysis Report SAR-2



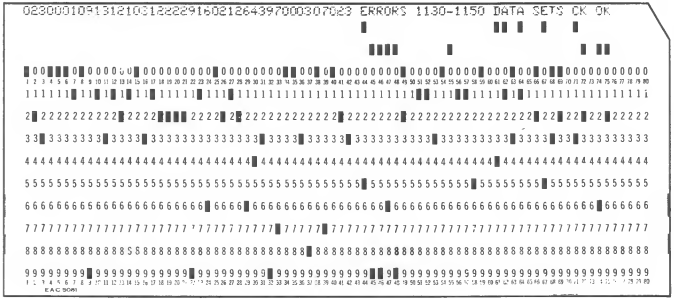


Fig. 4 — Sample of Service Analysis Report (SAR-2) Cards Punched Simultaneously With Receipt of Hard Copy on 4-Row, 100-WPM TWX Machine

FORM E-4736 (3-65 REV.)

CLASSIFICATION CODES AND DEFINITIONS FOR THE MANUAL HANDLING OF TROUBLE REPORTS

	CODE	TYPES OF REPORTS
Originating Call	1 CC – NDT CAN'T CALL NO DIAL TONE	Does not hear Central Office Dial Tone, Can't Raise the Operator, or receives Slow Dial Tone.
Originating Call	2 CC – OTH CAN'T CALL OTHER	Hears Central Office Dial Tone but Cannot Originate or Complete a Call. Includes reports of Cannot Call on circuits that do not furnish dial tone.
Originating or Transmitting Call	3 TRAN-NOISE TRANSMISSION NOISE	Reports Poor Transmission, Noise, or Interference.
Terminating Call	4 CBC CAN'T BE CALLED	Reports Can't Be Called, e.g., Bell Doesn't Ring, Bell Rings and Can't Answer, Bell Rings No Answer, Bell Rings After Answer, Bell Rings and Can't Trip Ring, Called For Wrong Number, or Gets Busy Incoming.
	5 MEM SVCS FAIL. MEMORY SERVICES FAILURE	Reports trouble with Customer Calling Services features, such as Speed Calling, Call Transfer, Three-way Calling, Call Waiting, Dial Pickup, Dial Hold, or Camp-On(Busy of an Automatic Switching System
	6 DATA FAIL. DATA FAILURE	Reports Can't Send Data or Can't Receive Data. Includes reports on Automatic Call Unit failures;
	7 PHY COND PHYSICAL CONDITION	Reports Worn, Damaged, Loose, or Missing Equipment, etc.
	8 MISC MISCELLANEOUS	Any type trouble report not included in the other codes.

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(a) Front

DISPOSITION CODES

1 STATION SET
All troubles in the station set used for any class of service. It includes Teletypewriter station sets, Call Directors, station sets associated with Speakerphones, PICTUREPHONES, PBXs, or Order Turrets, and Mobile Telephones. The subset of the two-piece telephone set is considered a part of the station set. Troubles on that portion of a coin telephone involving coin apparatus are included in Other Station Equipment.

2 OTHER STATION EQUIPMENT
All troubles in station equipment other than the station set such as Data Sets, BELLBOY Receiver Units, Auxiliary Signaling Equipment, Key Telephone Units, Key Cabinets or Turrets, Supplementary Station Equipment, Switchboards, Switching Equipment, Booths, and Coin Apparatus.

3 STATION WIRING
All troubles in Drop and Block Wire, Station Protectors, Inside Wire, Inside Wiring Cable used in lieu of Inside Wire, and Ground Wires.

4 OUTSIDE PLANT
All troubles in Cable, Cable Terminals, Amplifiers, Line Wire, Load Coils and their protection; Concentrators, Carrier Equipment, Base and Coast Stations in General Mobile Service and BELLBOY Personal Signaling Service located in places other than central offices.

5 CENTRAL OFFICE
All troubles in central office equipment. Includes troubles in central office equipment permanently associated with customer lines, and troubles in equipment common to customer lines.

6 CUSTOMER ACTION
All troubles caused by customer action or error affecting Company-owned and customer-owned equipment or attachments. Also includes trouble on customer-owned equipment or attachments.

60 RECEIVER OFF HOOK
All troubles caused by customers leaving the receiver off the hook.

7 TEST OK
Trouble reports are closed as Test OK when the trouble-causing condition cannot be determined and the report is not referred to the central office or outside forces for further investigation. Includes central office and concentrator overload conditions.

8 FOUND OK-IN
All trouble reports Found OK by central office forces, and not dispatched to outside forces. Reports where there is substantial evidence that the report was caused by lockup conditions, equipment off normal, etc. are classified to the central office.

9 FOUND OK-OUT
All trouble reports Found OK by outside forces. Reports that were Found OK by central office forces before dispatching are included.

0 REFERRED-OUT
All trouble reports referred to other forces or agencies for further handling. This does not apply to trouble reports on TWX and WATS Classes of Service when the trouble locates in near-end plant (Station Apparatus, Access Lines, and Serving Central Office).

CAUSE CODES

1 MAN MADE-TELEPHONE EMPLOYEE
Trouble was caused by a Telephone Company employee or overlooked by an employee on a previous report.

2 MAN MADE-OTHER
Trouble was caused by other than Telephone Company employees–intentionally or unintentionally. Includes troubles caused by Western Electric employees.

3 PLANT OR EQUIPMENT
Trouble was caused by overload, failure or breakdown of plant or equipment–independent of any direct human action.

4 WEATHER
Trouble was caused by weather conditions. Includes troubles caused by a tree being blown into the route of cables or wires.

5 OTHER
Covers cases not included in codes 1 thru 4.

6 UNKNOWN
Covers cases where it is impossible to determine the cause of a trouble or trouble report.

(b) Back

Fig. 5 — Classifications and Codes for Use on SAR-2 Reports (Special Exchange Services)

```
TO      510-571-0370    A B SEE          ANYWHERE, NY

ORG     510-222-9121    H I JAY          HOMETOWN, ILL    9-16-65

SAR-2   WEEK ENDING 9-14-65

>0230001  0909  1323  3122229160  5155710370  03  07  005=
CUTOFF MIDDLE 3 CALLS CLRD OUT<
>0230001  0911  1201  3122229160  2126439700  03  07  011=
ERROR BURSTS BOTH WAYS CLRD OUT<
>0230001  0912  1430  5155710370  3122229160  03  07  005=
CUTOFF 3 CALLS 1100-1130-CLRD OUT<
>0230001  0913  1210  3122229160  2126439700  03  07  023=
ERRORS 1130-1150 DATA SETS CK OK<
>0230001  0914  1320  3122229160  2126439700  03  09  045=
ERRORS 1220-1250 DATASPEEDS CK OK<

END
```

(a) Received on 35-Type TWX Machine (Hard Copy)

```
>0230001 >> 0909 >> 1323 >> 3122229160 >> 5155710370 >> 03 >> 07 >> 005= ←≡↓
CUTOFF > MIDDLE > 3 > CALLS > CLRD > OUT<← ≡↓↓↓↓↓↓↓
>0230001 >> 0911 >> 1201 >> 3122229160 >> 2126439700 >> 03 >> 07 >> 011= ←≡↓
ERROR > BURSTS > BOTH > WAYS > CLRD > OUT<← ≡↓↓↓↓↓↓↓
>0230001 >> 0912 >> 1430 >> 5155710370 >> 3122229160 >> 03 >> 07 >> 005= ←≡↓
CUTOFF > 3 > CALLS > 1100-1130 > CLRD > OUT<← ≡↓↓↓↓↓↓↓
>0230001>> 0913 >> 1210 >> 3122229160 >> 2126439700 >> 03 >> 07 >> 023= ←≡↓
ERRORS > 1140-1150 > DATA > SETS > CK > OK<← ≡↓↓↓↓↓↓↓
>0230001 >> 0914>> 1320 >> 3122229160 >> 2126439700 >> 03 >> 09 >>045= ←≡↓
ERRORS > 1220-1250 > DATASPEEDS > CK > OK<← ≡≡↓↓↓↓↓↓↓

END ← ≡ ↓↓↓↓↓↓↓
```

(b) Body of Same Message Showing Teletypewriter Functions Required for On-Line Card Punching

Teletypewriter Functions Legend:	Teletypewriter Printout of Card Punch Control Codes:
← Carriage Return	> Punch Start
≡ Line Feed	< Punch Stop
↓ Erase (letters)	= End Numeric
> Space	

Fig. 6 — Sample of Service Analysis Report SAR-2

A T & T. CO.
LONG LINES DEPT.
V

PRIVATE SERVICE RESULTS
CUSTOMER DETAILED TROUBLE DATA

FORM P-2071
10-64

CIRCUIT NUMBER	DATE OF TROUBLE	DPI CODE	DISTRICT WITH REPORT	DISTRICT WITH TROUBLE	TROUBLE ANALYSIS CODE	DURATION TIME HRS.	DURATION TIME MIN.	LOCAL PLANT CLEAR'G TIME HRS.	LOCAL PLANT CLEAR'G TIME MIN.	REPORT CODE	STUDY CODE	TROUBLE DESCRIPTION
-DP -16689- 1	02-05	3614	16	00	IS15	00	10	00	00	1	000	OG PST WEST CXR TRBL KGSVLLE
-DP -17600-	01-15	5361	07	00	STC11	00	15	00	00	2	000	
	01-18	5361	07	07	SC13	03	59	03	55	2	000	
	01-18	5374	26	99	R000	00	10	00	00	2	000	
	01-19	5374	26	99	R000	00	17	00	00	2	000	
	01-22	5361	07	99	R000	01	14	00	00	2	000	
	01-22	5374	26	26	ST11	00	15	00	15	2	000	
	01-25	4118	65	99	R000	00	10	00	00	1	200	DEAD CUST ACT
	01-26	5	26	26	ST18	01	07	01	05	2	000	
	01-26	5	26	26	ST18	00	48	00	47	2	000	
	01-30				ST11	02	00	01	50	2	000	
	02-04					03	15	00	00	1	000	STN C DEAD LP OPN TB CBLE
	02-04						00	00	20	1	600	NO LITE STA 6 3 AVE BO LP
	02-04							00	00	2	000	
	02-05							00	00	1	000	NSY FN RX CAME CLEAR
	02-07									2	000	
	02-09										000	NSY TCC OK CY TLSA
	02-09											NSY CC
	02-09	5374										
-DP -18703-	01-22	7317	7									C
-DP -19839-	02-04	4116	04									CLRD NY
-FP -20150-	02-04	7317	99	00	R							ST LOU MO
	02-04	5374	26	99	R000							
-FP -21860-	01-15	7317	23	00	T12	00	2					TCC
-FP -22436-	01-15	7317	23	99	R000	00	35					LE AT WASH CC
	01-15	0120	22	00	T12	00	15	00	00			12
-FP -23928-	01-15	A520	54	99	R000	02	30	00	00	1		
	01-18	7317	99	00	CC11	00	38	00	00	1	00	P CM DLS CC
	01-18	4118	65	99	R000	00	10	00	00	2	100	TNE CO WORK
	01-26	4118	65	66	LP00	00	47	00	25	2	100	CNT BE HEARD CXR FLR
-FX -2433-	01-17	7317	31	00	STC13	00	13	00	00	1	000	DGR INC OLL NY PAT
-FX -18220-	01-26	2116	46	00	T12	01	00	00	00	1	000	
	01-26	2116	46	00	I532	00	44	00	00	1	000	

EXHIBIT
(NETWORK MANAGER DATA)
THE LAST 4 WEEKS TROUBLE REPORTS BY CIRCUIT
FOR ALL CIRCUITS IN A NETWORK.
MAILED TO NETWORK MANAGER WEEKLY.

X TPH / NON MLTY	TGH / MLTY	CUSTOMER	AMER AIRLINES 4
		NETWORK CONTROL OFFICE DPI	7317
01-15-65		CIRCUIT CONTROL OFFICE	NEW YORK
02-11-65		CIRCUIT CONTROL OFFICE DPI	7317

PAGE 3

Fig. 7 — Form P-2071

FORM E-5068B
1-66

SERVICE ANALYSIS REPORT SAR-3

TO ORG

TWX NO 510-571-0370 NAME A. B. See TWX NO 510-222-9121 NAME H. L. Jay

CITY-STATE Graysboro, N. Y. CITY-STATE Hometown, Ill. DATE 9-23-65

REPORT PERIOD Week Ending 9-21-65 SAR CONTROL CODE 0230 002

	CIRCUIT																		TROUBLE CODE				DURATION TIME				LOC PLANT CLEARING TIME			
	PREFIX																													
	NO		LETTERS			BASIC NO					SUFFIX			MO		DAY		LETTERS				NO		HRS		MIN		HRS		MIN	
>	1	2	G	O	A	1	0	2	0	5	1	2	5	0	9	1	7	S	T	C		1	1	0	0	2	0	0	0	2	0
=	C	K	T		O	P	E	N			O	E	F	A	M		P		H	O	M	E	T	O	W	N					<
>	–	–	–	G	P	–	2	7	7	7	–	–	–	0	9	1	8	–	–	T	1	1	0	0	0	3	0	0	0	3	
=	N	O		T	B	L			F	O	U	N	D																		<
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Fig. 8 — Form E-5068B

BSP E12.150.11

TROUBLE CLASSIFICATION CARD
TELEPHONE

E-4642 (9-58)

UNSECTIONALIZED TROUBLES (SECT. TO = ✓)

- T TEST OK
  - T11 INOPERATIVE
  - T12 SIGNALING
  - T13 TRANSMISSION
  - T14 NOISE - CROSSTALK
  - T15 HOWL - ECHO
  - T16 OTHER
- NC NONCLASSIFIED
- CC CAME CLEAR
  - CC11 INOPERATIVE
  - CC12 SIGNALING
  - CC13 TRANSMISSION
  - CC14 NOISE - CROSSTALK
  - CC15 HOWL - ECHO
  - CC16 OTHER

STC TROUBLES (SECT. TO = STC)

- STC SERVING TEST CENTER
  - STC11 REPTR. & ECHO SUPP.
  - STC12 SIGNALING EQPT.
  - STC13 CUT., SW. & CONTR. ARNGTS.
  - STC14 SAGE - DDT & DDR
  - STC15 SAGE - CUG & DF TRK. EQPT.
  - STC16 PLANT ACTIVITIES
  - STC17 OTHER
  - STC18 CAME CLEAR

INTER STC TROUBLES (SECT. TO = IS)

- IS INTER STC TROUBLES
  - IS11 REPTR. & ECHO SUPP.
  - IS12 CARR. CHAN. - CABLE
  - IS13 CARR. CHAN. - OPEN WIRE
  - IS14 CARR. CHAN. - COAXIAL
  - IS15 CARR. CHAN. - RADIO
  - IS16 VOICE CONDR. - CABLE
  - IS17 VOICE CONDR. - OPEN WIRE
  - IS18 SIGNALING EQPT.
  - IS19 PLANT ACTIVITIES & OTHER

  } IN TERR.

  - IS31 TRBLS. LOCATED OUTSIDE TERR.
  - IS32 CAME CLEAR

REFERRED OUT TROUBLES (SECT. TO = RO)

- RO REFERRED OUT
  - RO11 _____
  - RO12 _____
  - RO13 _____
  - RO14 _____
  - RO15 _____
  - RO16 _____

SERVING LINK TROUBLES (SECT. TO = CUST. LOC. DIST.)

- SC CUSTOMER ACTION
  - SC11 OPERATION
  - SC12 MAINTENANCE
  - SC13 OTHER
- ICO INDEPENDENT COMPANY
- ST STATION APPARATUS
  - ST11 TELEPHONE INSTR.
  - ST12 PBX
  - ST13 TELCO. TAPE RECORDER
  - ST14 RADIO TRNSMTER. & RECVR
  - ST15 PULSE CONVTR. EQPT..
  - ST16 SIGNALING EQPT.
  - ST17 CARR. TERM.
  - ST18 COMM. TERM. & MISC. EQPT.
  - ST19 OTHER
  - ST21 SAGE - DDT & DDR
  - ST22 SAGE - CUG & DF TRK. EQPT.
- TP TOLL TYPE FACILITIES
  - TP11 REPTR. & ECHO SUPP.
  - TP12 CARR. CHAN. - ALL
  - TP13 VOICE CONDR. - ALL
  - TP14 SIGNALING EQPT
  - TP15 SAGE - DDT & DDR
  - TP16 SAGE CUG & DF TRK. EQPT.
  - TP17 OTHER
- LF LOCAL FACILITIES
- K FOUND OK
- CC CAME CLEAR
  - CC21 CAME CLEAR IN SERVING LINK

BSP E12.150.21

TROUBLE CLASSIFICATION CARD
TELEGRAPH

E-4644 (9-58)

UNSECTIONALIZED TROUBLES (SECT. TO = ✓)

- T TEST OK
  - T51 OPEN
  - T52 GARBLED
  - T53 CAN'T RAISE - NO ANS. BACK
  - T54 NO COPY - MISDIRECTED MSGS
  - T55 NO TAPE PICKUP
  - T56 OTHER
- NC NONCLASSIFIED
- CC CAME CLEAR
  - CC51 OPEN
  - CC52 GARBLED
  - CC53 CAN'T RAISE - NO ANS. BACK
  - CC54 NO COPY - MISDIRECTED MSGS.
  - CC55 NO TAPE PICKUP
  - CC56 OTHER

STC TROUBLES (SECT. TO = STC)

- STC SERVING TEST CENTER
  - STC51 REPEATER - REGEN
  - STC52 REPEATER - OTHER
  - STC53 CARR. TERM. - FREQ. SHIFT
  - STC54 CARR. TERM. - AMP. MOD.
  - STC55 CUTTING ARNGTS.
  - STC56 PLANT ACTIVITIES
  - STC57 OTHER
  - STC58 CAME CLEAR

INTER STC TROUBLES (SECT. TO = IS)

- IS INTER STC TROUBLES
  - IS51 D.C. CONDR. - CABLE
  - IS52 D.C. CONDR. - OPEN WIRE
  - IS53 CARR. SYS. - FREQ. SHIFT
  - IS54 CARR. SYS. - AMP. MOD.
  - IS55 PLANT ACTIVITIES
  - IS56 OTHER

  } IN TERR.

  - IS71 TRBLS. LOCATED OUTSIDE TERR.
  - IS72 CAME CLEAR

REFERRED OUT TROUBLES (SECT. TO = RO)

- RO REFERRED OUT
  - RO51 _____
  - RO52 _____
  - RO53 _____
  - RO54 _____
  - RO55 _____
  - RO56 _____

SERVING LINK TROUBLES (SECT. TO = CUST. LOC. DIST.)

- SC CUSTOMER ACTION
  - SC51 OPERATION
  - SC52 MAINTENANCE
  - SC53 OTHER
- ICO INDEPENDENT COMPANY
- ST STATION APPARATUS
  - ST51 PERFORATOR
  - ST52 REPERF. TRNSMTR.
  - ST53 REPERF. - TYPING & NONTYPING
  - ST54 AUTO TRNSMTR.
  - ST55 KSR & RO
  - ST56 SUBSET D.C.
  - ST57 CARR. TERM.
  - ST58 OTHER
- SS SEL. SIG. & SWITCHING SYS.
  - SS51 SOTUS
  - SS52 28 TYPE
  - SS53 64C1
  - SS54 ERX & SRX
  - SS55 AUTO. SW. SYS. - COMM. EQPT.
  - SS56 SEMIAUTO. SW. SYS. - COMM. EQPT
  - SS57 OTHER
- TP TOLL TYPE FACILITIES
  - TP51 REPEATER - ALL
  - TP52 CARR. TERM. - FREQ. SHIFT
  - TP53 CARR. TERM. - AMP. MOD.
  - TP54 D.C. CONDR. - CABLE
  - TP55 D.C. CONDR. - OPEN WIRE
  - TP56 CARR. SYS. - FREQ. SHIFT
  - TP57 CARR. SYS. - AMP. MOD.
  - TP58 OTHER
- LF LOCAL FACILITIES
- K FOUND OK
- CC CAME CLEAR
  - CC 61 CAME CLEAR IN SERVING LINK

Fig. 9 — Trouble Classification Cards for Use on SAR-3 Reports (Private Line Services)

```
TO      510-571-0370    A B SEE          ANYWHERE, NY
ORG     510-222-9121    H I JAY          HOMETOWN, ILL  9-23-65
SAR-3   WEEK ENDING 9-21-65              CONTROL CODE 0230002
>12GDA10205125  0917  STC11  0020  0020 =CKT OPEN DEF AMP HOMETOWN<
---GP-2777---  0918  --T11  0003  0003 =NO TBL FOUND<
END
```

(a) Received on 35-Type Machine (Hard Copy)

```
>12GDA10205125>>0917>>STC11>>0020>>0020>> =CKT>OPEN>DEF>AMP>HOMETOWN<←≡↓↓↓↓↓↓↓↓
>---GP-2777--- >> 0918>> --T11 >> 0003 >> 0003>> =NO TBL FOUND<←≡↓↓↓↓↓↓↓↓
END
```

(b) Body of Same Message Showing Teletypewriter Functions Required For On-Line Card Punching

Teletypewriter Functions Legend:

← Carriage Return
≡ Line Feed
↓ Erase (letters)
> Space

Teletypewriter Printout of Card Punch Control Codes:

>Punch Start
<Punch Stop
=End Numeric

Fig. 10—Sample of Service Analysis Report SAR-3